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Attorney Docket No. 1645912

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Boyd

Group Art Unit: 1645

Application No. 09/427,873

Examiner: L. Lee

Filed: October 27, 1999

For: METHODS OF USING  
CYANOVIRINS TO INHIBIT  
VIRAL INFECTION

1,000,000  
1 x 10<sup>6</sup> copies/ml is  
normal plasma

PENDING CLAIMS AS OF FEBRUARY 1, 2001

whilmer?

20. A method of inhibiting therapeutically or prophylactically a viral infection of a host, which method comprises administering to the host an antiviral effective amount of an isolated and purified antiviral agent selected from the group consisting of an antiviral protein, an antiviral peptide, an antiviral protein conjugate, and an antiviral peptide conjugate, wherein said antiviral protein or antiviral peptide is encoded by an isolated and purified nucleic acid molecule encoding at least nine contiguous amino acids of SEQ ID NO: 2, wherein said at least nine contiguous amino acids of SEQ ID NO: 2 has antiviral activity, whereupon administration of said antiviral effective amount of said antiviral agent, said viral infection of said host is inhibited.

WHAT IS THIS?

101 AA

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CYANOVIRUS (NOSTOC EUROSPOREUM) CYANOBACTERIA)

21. The method of claim 20, wherein said antiviral protein comprises the amino acid sequence of SEQ ID NO: 2.

22. The method of claim 20, wherein said antiviral protein conjugate or said antiviral peptide conjugate comprises (i) at least nine contiguous amino acids of SEQ ID NO: 2, wherein said at least nine contiguous amino acids of SEQ ID NO: 2 has antiviral activity, and (ii) an isolated and purified viral envelope glycoprotein.

IN VITRO ASSAYS: CAM-SS CELLS (INFECTED W/ H2O-1) / ADD CYN (PK 475)  
" " + FOUR VEROS + CYN

VEROS USED: H2O-1<sub>RF</sub> (WATTSAN)  
CYN MIXES 6P120 (PK 6, p. 51)

23. The method of claim 22, wherein said antiviral protein comprises the amino acid sequence of SEQ ID NO: 2.

24. The method of claim 22, wherein said isolated and purified viral envelope glycoprotein is an isolated and purified retroviral envelope glycoprotein.

25. The method of claim 24, wherein said isolated and purified retroviral envelope glycoprotein is an isolated and purified immunodeficiency viral envelope glycoprotein.

26. The method of claim 25, wherein said isolated and purified immunodeficiency viral envelope glycoprotein is an isolated and purified viral envelope glycoprotein of HIV-1 or HIV-2.

27. The method of claim 26, wherein said isolated and purified viral envelope glycoprotein of HIV-1 or HIV-2 comprises gp120.